FIG.1

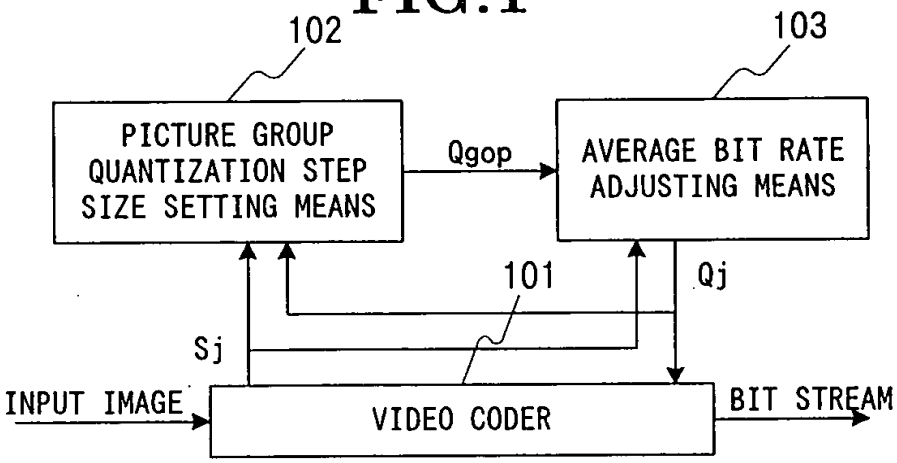


FIG.2

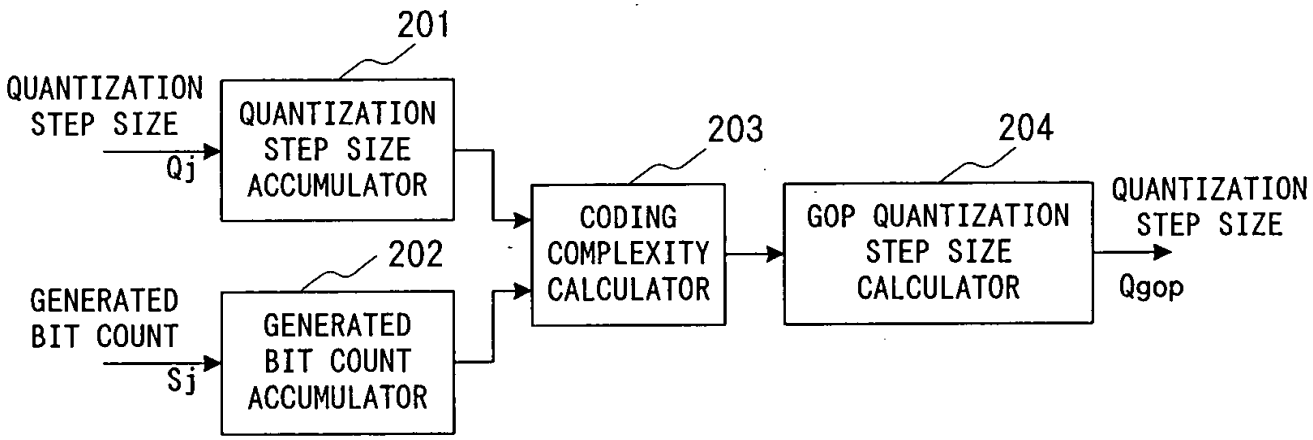


FIG.3

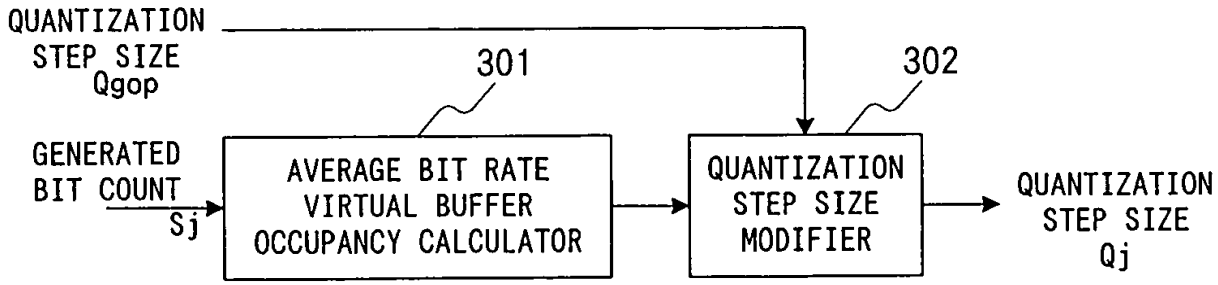


FIG.4

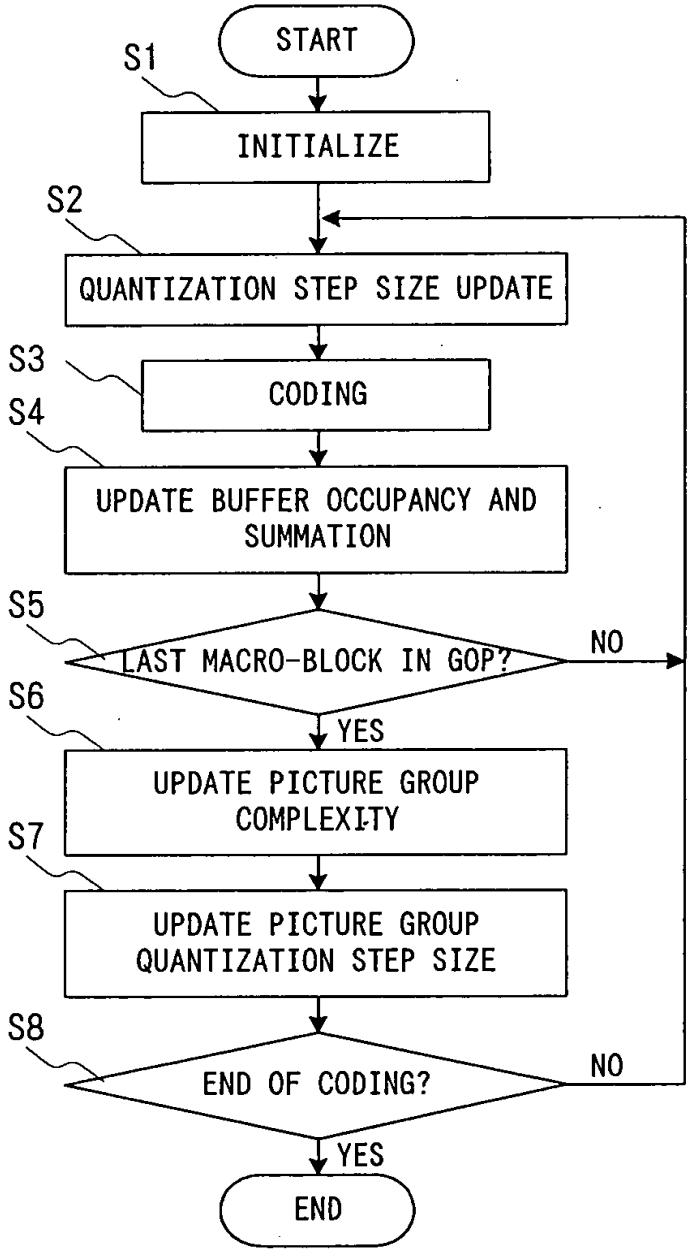

START
S1
INITIALIZE
S2
QUANTIZATION STEP SIZE UPDATE
S3
CODING
S4
UPDATE BUFFER OCCUPANCY AND SUMMATION
S5
LAST MACRO-BLOCK IN GOP?
NO
YES
S6
UPDATE PICTURE GROUP COMPLEXITY
S7
UPDATE PICTURE GROUP QUANTIZATION STEP SIZE
S8
END OF CODING?
NO
YES
END

FIG.5

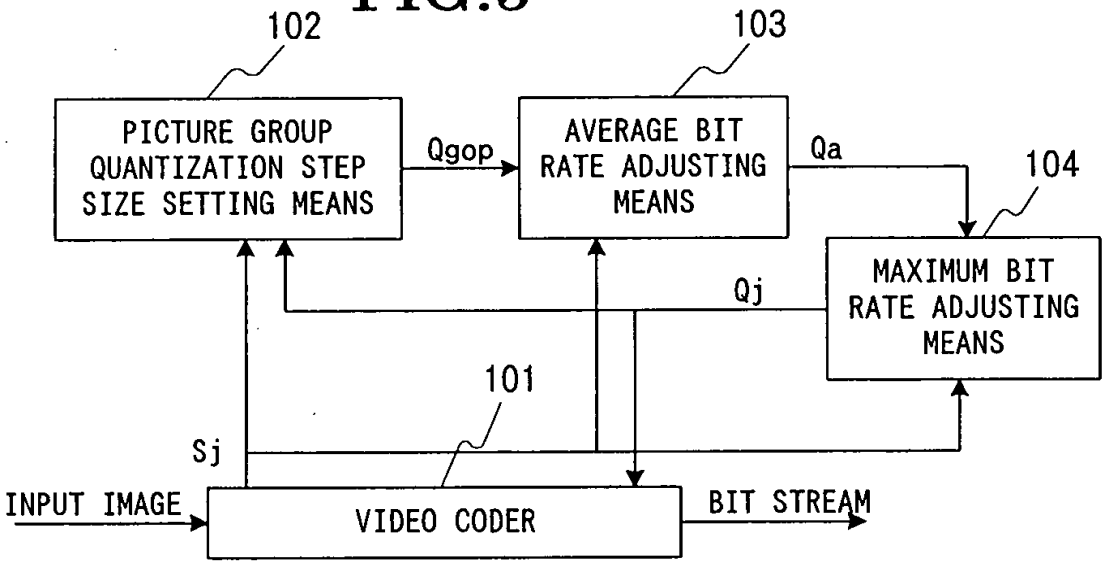

102
103
PICTURE GROUP QUANTIZATION STEP SIZE SETTING MEANS
Qgop
AVERAGE BIT RATE ADJUSTING MEANS
Qa
104
MAXIMUM BIT RATE ADJUSTING MEANS
Qj
101
Sj
INPUT IMAGE
VIDEO CODER
BIT STREAM

FIG.6

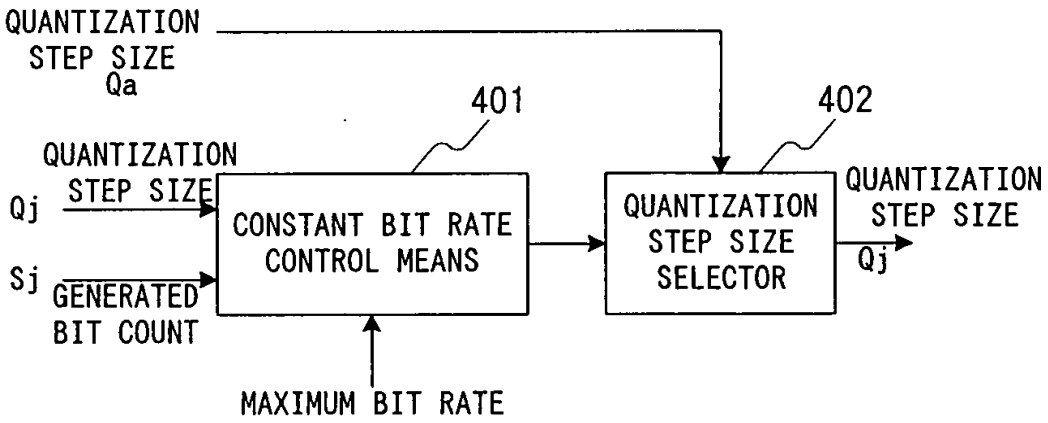

QUANTIZATION STEP SIZE
Qa
401
402
QUANTIZATION STEP SIZE
Qj
CONSTANT BIT RATE CONTROL MEANS
QUANTIZATION STEP SIZE SELECTOR
QUANTIZATION STEP SIZE
Qj
Sj
GENERATED BIT COUNT
MAXIMUM BIT RATE

FIG.7

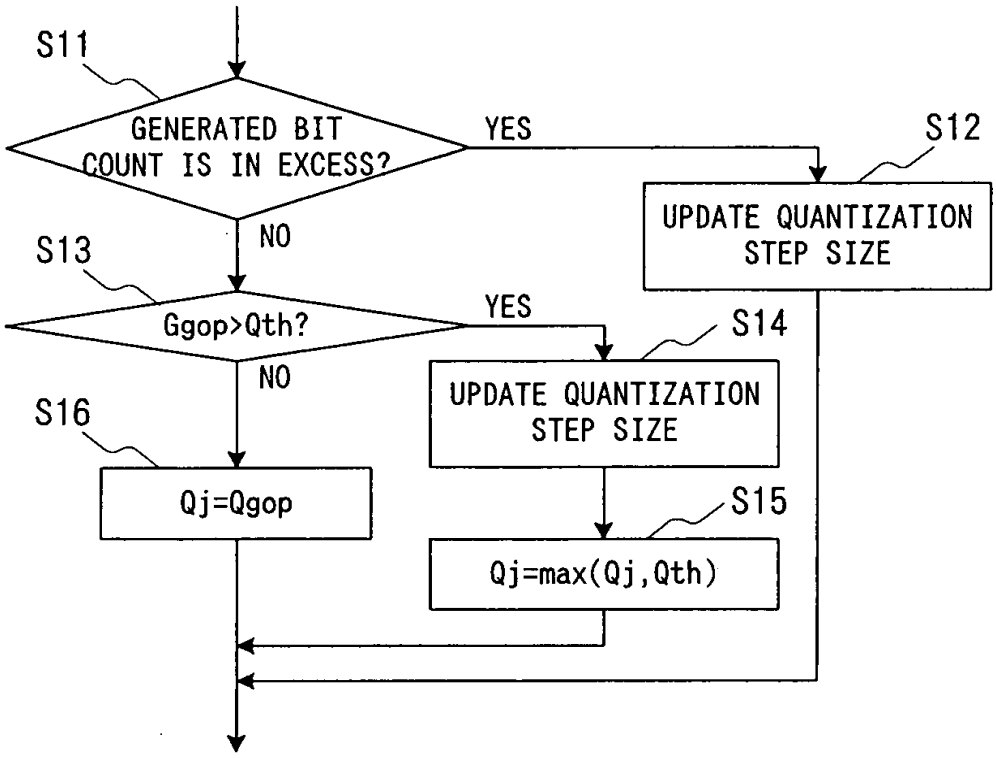
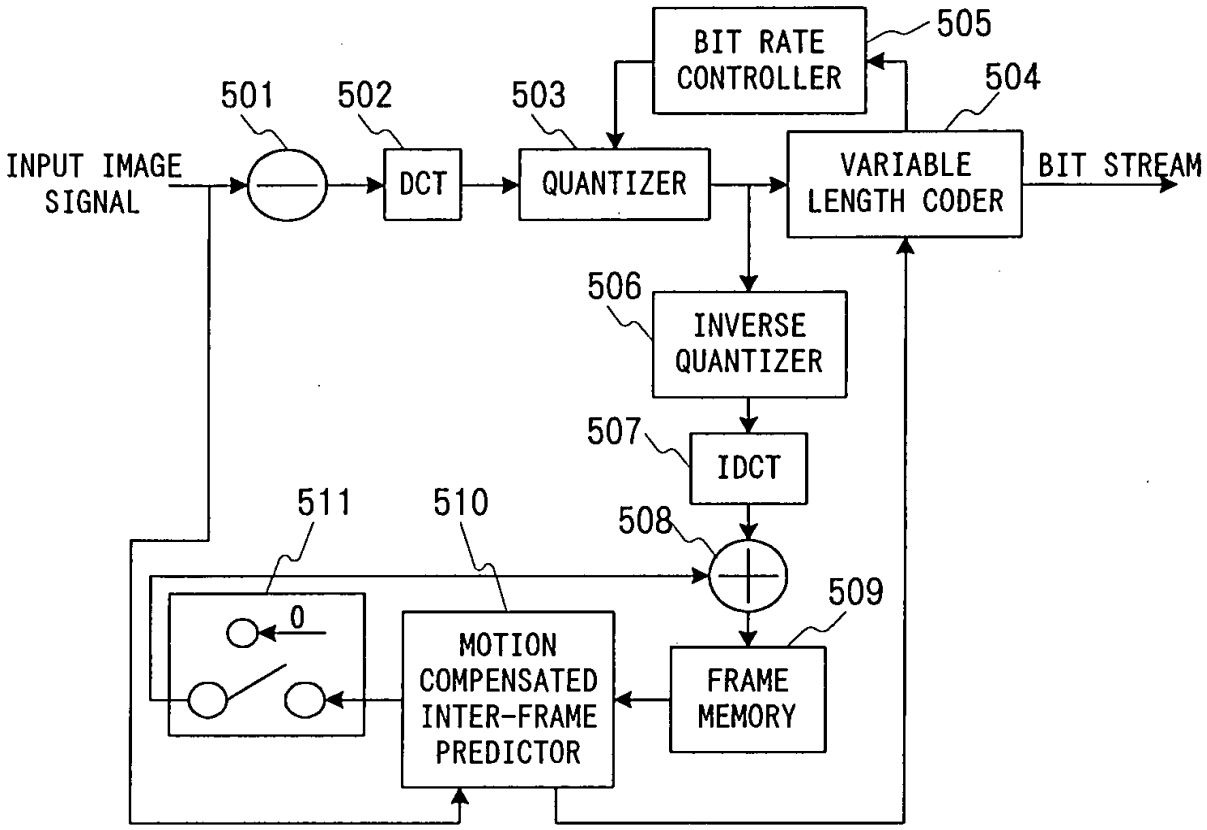

S11
GENERATED BIT COUNT IS IN EXCESS?
YES
S12
UPDATE QUANTIZATION STEP SIZE
NO
S13
Ggop>Qth?
YES
S14
UPDATE QUANTIZATION STEP SIZE
NO
S16
Qj=Qgop
S15
Qj=max(Qj,Qth)

FIG.8


BIT RATE CONTROLLER
505
501
502
503
504
INPUT IMAGE SIGNAL
DCT
QUANTIZER
VARIABLE LENGTH CODER
BIT STREAM
506
INVERSE QUANTIZER
507
IDCT
511
510
508
509
0
MOTION COMPENSATED INTER-FRAME PREDICTOR
FRAME MEMORY